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This document describes the TQM plan for DLA Technical and Logistics Services. As a quality provider of technical and logistics services, the Directorate will implement TQM initiatives at Headquarters DLA and at functional counterparts in the Field. The plan requires continuous assessment of customer needs and a systematic evaluation of the processes performed that contribute to customer satisfaction.

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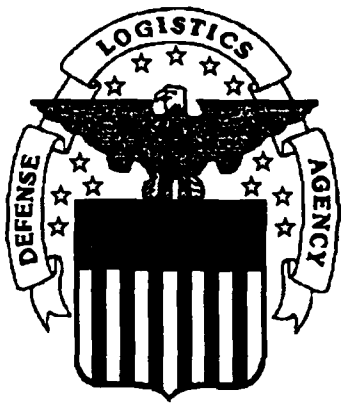

TOTAL QUALITY MANAGEMENT PLAN

TECHNICAL AND LOGISTICS SERVICES

MAY 1989

CONTENTS

TOTAL QUALITY MANAGEMENT PLAN
TECHNICAL AND LOGISTICS SERVICES

I. THE TOTAL QUALITY MANAGEMENT (TQM) CONCEPT.

A. What is TQM?

Total Quality Management (TQM) is a DoD initiative for continuously improving its performance at every level, in every area of DoD responsibility. It is an approach that relies on well-established principles of quality assurance, such as the use of statistical process control. TQM taps into the creativity of all employees, making everyone--managers and employees alike--responsible for quality products and services.

In a TQM environment, managers and employees continuously strive to meet customer expectations, to "do the right thing right the first time," and to achieve ever higher standards of quality, timeliness, and efficiency.

B. TQM in Technical and Logistics Services

Technical and Logistics Services is a service organization whose ultimate customers are the Military Services, contractors, and the general public. Technical services in support of procurement, supply management, and Military Services' system design are performed in engineering and technical activities located at the six Supply Centers. These services include preparation of the description of goods and services to be acquired, parts control for system design, value engineering, reduction of item inventory, technical support of inventory management, and product verification.

Technical and logistics services performed at four of the Service Centers (Defense Reutilization and Marketing Service, Defense Logistics Services Center, Defense Technical Information Center, and Defense Industrial Plant Equipment Center) include property reutilization, marketing and disposal and management and maintenance of a comprehensive logistics data base, a central repository of scientific and technical information, and excess contractors' inventories and industrial plant equipment.

The TQM Plan for Technical and Logistics Services is modeled after DLA's TQM Master Plan. As a quality provider of technical and logistics services, we will implement TQM initiatives at Headquarters and at our functional counterparts in the field. TQM requires a continuous assessment of our customers' needs and a systematic evaluation of the processes performed that contribute to customer satisfaction.

The TQM initiatives will continuously improve the quality and timeliness of our products and services while reducing their costs. We do not intend to abandon the many productive and innovative improvement programs already developed and working throughout the Agency. We will provide specific functional area

process improvement goals and enrich ongoing programs by applying TQM management techniques to enhance their efficiency.

The methodology and goals described in the succeeding pages acknowledge the need for flexibility in establishing TQM goals and objectives. Institutionalizing TQM within the Directorate is a long term process. Periodic fine tuning of goals and objectives will be necessary as the TQM concept is assimilated throughout the organization.

II. METHODOLOGY.

A. Objective.

The Technical and Logistics Services TQM Plan contains specific process improvement goals which support the broad goals and objectives contained in the DLA TQM Master Plan. These goals will be translated into improved products and services through the repetitive, continuous use of a process improvement cycle. The process improvement cycle will consist of:

1. Identification of work processes.

2. Identification of relevant measurement points.

3. Identification and prioritization of opportunities for improvement.

4. Implementation of the best solutions.

5. Monitoring effectiveness.

Special Process Action Review Committees (SPARCs) will be formed as needed to assess processes requiring a multi-talented and/or multi-functional team effort. These SPARCs will address process improvement both within DLA-S and processes that concern two or more PSEs or PLFAs.

B. TQM Structure

The responsibility for establishing specific goals and objectives for DLA-S and its PLFA functional counterparts rests with the DLA-S TQM Working Group. This group, chaired by the Deputy Executive Director, is comprised of members from each division. The working group reports directly to the Executive Director. The working group is responsible for overseeing the implementation of TQM throughout the Directorate, formulating policies and procedures as needed, coordinating TQM efforts with other PSEs and PLFA functional counterparts, and providing oversight to its PLFA functional counterparts.

III. TECHNICAL AND LOGISTICS SERVICES TQM GOALS.

A. Develop a TQM Trained Workforce.

Training is absolutely vital to the success of TQM. TQM

requires discipline, dedication, and a full understanding of TQM principles and techniques. The process will begin with awareness training followed by an identification of areas of concentration where TQM will be applied and TQM tools and techniques. To ensure successful implementation, DLA-S personnel will receive training comprised of the following.

a. Introduction of TQM Concepts - All

b. Training of TQM Facilitators - Managers, Members of DLA-S Working Group, and SPARC facilitators.

c. Process Identification and Structured Problem Solving Techniques - Managers, Members of DLA-S Working Group, and SPARC members.

d. Standards and Measures - All

e. Personal Growth and Development - All

f. Refresher Training - All

B. Harmonizing Directives.

In discharging its responsibilities for the management and administration of technical and logistics services functions performed by the Military Services, other Government agencies, and PLFAs, the Directorate develops/issues policy and procedural guidance in the form of DoD and DLA publications and other instructions. As existing and future policies and procedures evolve to meet the customers' needs, reviews will be conducted in focus with TQM principles. The reviews will entail an indepth study of all policies and procedures for the purpose of improving the efficiency and effectiveness of internal operations and the quality of service to our customers.

C. Integrate Existing Initiatives

The DLA-S TQM Plan encompasses all other plans, objectives, and programs currently operative in the Directorate of Technical and Logistics Services. Whenever possible, and to the extent practicable, TQM process reviews will be accomplished simultaneously with other programs requiring process review such as the Internal Management Control (IMC), Strategic Planning, and Excellence and Efficiency in an Enriched Environment (E 4). A discussion of some ongoing DLA-S and PLFA initiatives or programs which fall under the TQM umbrella is contained at Appendices A and B.

D. Sensitize Industry to TQM and Encourage Adoption in Business Strategy.

Technical and Logistics Services has many private sector customers and vendors and, therefore, has the opportunity and responsibility to demonstrate TQM methods and to encourage them to adopt the TQM philosophy. Selection of vendors and contract

performance can be evaluated on a basis of Statistical Process Control. Better quality will minimize lead times, decrease the numbers of errors or rejects, reduce costs, and increase profits in the private sector. The following initiatives have been identified to ensure successful accomplishment of this goal:

a. A major thrust in sensitizing industry is through Value Engineering (VE). TQM concepts are interwoven throughout the VE process. These concepts include buying the highest quality product at the best value.

b. The use of Statistical Process Control techniques in military specifications is being developed.

c. Presently, most engineering drawings and related narratives are produced on paper. Such blueprints are not always legible, difficult to transmit to other users, and take up a lot of storage space. Through DoD's CALS program, DLA will require "paperless" acquisition of technical data. This will include digitization of engineering drawings, their electronic transmission to the appropriate DLA Supply Center, and electronic ordering/payment for technical data. The strategy will be that by FY 92 DLA will not contract with suppliers unwilling to do business in a "paperless" mode. Digitization of technical data and automated ordering/payments will improve data quality, speed up data access, and reduce data storage costs.

E. Demonstrate an Uncompromising Commitment to Buying and Supplying the Highest Quality Products and Services.

Technical and Logistics Services has many private sector customers and vendors and, therefore, has the opportunity and responsibility to both provide quality products to our customers and to demand it from those we buy from or contract for services. We can make quality a key element in contracting. Again, selection of vendors and contract performance can be measured by TQM statistical methods. The following initiatives have been identified to ensure successful accomplishment of this goal:

a. We will no longer release military specifications with Acceptable Quality Levels (AQLs) or Lot Tolerance Percent Defective (LTPD) factors included in them. The message will be clear to contractors that we will no longer accept defective products as a way of doing business.

b. Use of anti-counterfeiting techniques will be expanded to eliminate unauthorized product substitutions.

c. For users of the Federal Catalog System (FCS) data base, the quality of individual item records is key to helping FCS users minimize costs associated with duplicatively purchasing spare parts. DLA-S will do the work necessary so that by end FY 92, 75 percent of new items entering the data base from DLA Centers will be fully described (presently about 50 percent of such items are fully described).

d. Presently, most FCS publications are produced in microfiche format. The only qualified producer of these publications has been unable to consistently produce readable microfiche sheets. Because of this quality problem which impacts on the ability of Services/Agencies to minimize costly duplicative acquisition of spare parts, DLA-S will work to make FCS publications available on optical disc format. This publications technology will provide consistently usable FCS data to the logistics community.

F. Enhance DLA-S Recognition and Award System. Recognition programs will be enhanced to reward TQM super achievers and to publicize success stories.

1. The DLA Technical and Engineering Achievement Award. The award is presented annually to the Technical or Engineering individual, team, or combination of both, whose performance, through outstanding expertise and professionalism, has made a significant contribution in technical/engineering operations. The award is an engraved plaque signed by the Director, DLA, and is presented by the Executive Director, Technical and Logistics Services, at the spring DLA Technical Operations and Engineering Directors' Conference.

2. Honorary DoD Value Engineering Achievement Awards. The awards program was instituted as a pilot activity during FY 82 to direct attention to the potential of value engineering to contribute to our efforts to increase efficiency and economy. Because it has been proven to be a highly visible way to acknowledge exemplary achievements and encourage additional projects to improve in-house and contractor productivity, the honorary value engineering program has been made permanent. DLA forwards one nominee in each of four categories: (1) field command, (2) individual, (3) value engineering professional, and (4) contractor. The awards are presented at the Pentagon by the Under Secretary of Defense for Acquisition.

3. DLA Value Engineering Million Dollar Club. The program was established to promote Center employee interest in developing value engineering ideas. Contributors of VE submit proposals that, when accepted and implemented, accumulate total savings. When a contributor's savings total $1 million, his/her name is submitted for the award. Awards are also presented for savings of $3 million and $5 million. The $5 million award is presented by the Director, DLA.

4. DRMO of the Year. DRMS recognizes the DRMO which best exemplifies the execution of its mission responsibilities. DRMS has developed a statistical quality control system which will measure the business processes statistically and identify the winner each year.

5. DLA-S Recognition Ceremony. A quarterly DLA-S Recognition Ceremony has been established to recognize deserving individuals and groups.

G. Develop Feedback and Communication System.

Feedback and communication systems will be enhanced to provide formal and informal mechanisms for capturing and sharing ideas leading to improved quality. Formal applications include:

1. Participants of the semiannual DLA Technical and Engineering Directors' Conference will report their progress in implementing TQM and share their benefits/experiences.

2. The DLA-S TQM Working Group will visit functional counterparts in the field to discuss the progress of implementing TQM.

3. The agenda/questionnaire used for conducting Staff Assistance Visits will include an evaluation of the process improvement initiatives under review.

Informal mechanisms can lead to improved communications among the staff of the Directorate. The fostering of a free flow of information and suggestions will make for better quality. Creation of SPARCs for ad hoc studies of specific processes will draw individuals from across division and branch organizational boundaries. This will facilitate communication among the team members even after the dissolution of the team.

H. Institutionalize TQM within DLA-S.

The ultimate goal is to incorporate TQM into the everyday life of DLA-S and its functional counterparts in the field. The Executive Director and top staff are totally committed to the TQM philosophy. They will be continually educated in TQM in order to instill the TQM philosophy at all levels of the workforce. To this end, the entire DLA-S organization will be reviewed to identify areas of concentration where TQM will be applied. A specific goal of this plan is to identify the work processes, both in HQ and in the field, which will be reviewed for application of TQM management techniques.

As a first step in improving the quality and timeliness of our products and services, the following processes have been identified for application of TQM management techniques. The milestones for these goals are included in Appendix C.

1. Technical and Logistics Data Division:

a. The Technical Information Branch (DLA-SCT) will establish communications protocols with DTIC to enable the personnel charged with the DLA Headquarters responsibility for the Scientific and Technical Information Program (STINFO) to search the STINFO data bases at DTIC.

b. The Logistics Data Branch (DLA-SCC) has identified three high value processes for TQM review. The Branch will use peer review and customer feedback to strive for continuous improvement of these high-visibility processes.

(1) Initiation/management of the annual report on the Federal Catalog System.

(2) Interagency coordination of System Change Requests.

(3) Identification of new publications and the most useful means of producing such publications.

2. Engineering Programs Division:

a. Eliminating AQLs and LTPDs from military specifications. Mandates have been issued to preparing activities, Lead Standardization Activities, and agents for military specifications to eliminate AQLs and LTPDs.

b. Suspense system. A database application where reports, inquiries, and suspense notices are tracked and reported. This system will enable management to ensure that our customers' requests are met in the most efficient manner.

3. Property Reutilization and Marketing Division:

a. Improve process for program evaluation to include analysis of the gathering and processing of management data. Methods to apply Statistical Process Control must be made, tested, evaluated, and refined.

b. Improve the sale of surplus property through a complete analysis of customers' needs and the entire process from property identification, sales preparation, conduct of the sale, payment, and removal.

4. Technical Programs Office:

a. Improve process for the receipt and distribution of mail. Perform a detailed review of the process of receipt and distribution of mail within DLA-S. The analysis will include customer requirements and the actions in the process such as misdirected mail, internal and external, timeliness of mail deliveries, and customer complaints regarding mail.

b. Improve quality and productivity by reviewing Office Automation procedures. Elements for analysis will include compatibility of hardware and software, uniform understanding and application of rules for format, style, and flow of written products.

I. Institutionalize TQM within PLFAs.

The following processes have been identified for consideration by our PLFA functional counterparts for adoption during development of their TQM implementation plan.

1. DRMS:

a. Enhance the Statistical Quality Control system by incorporating Deming's methods to establish upper and lower control limits and define special cause and common cause, or random, variation. These limits can be established for each of the DRMS processes measured in the quality control system. Special cause conditions can be readily identified and acted upon. Common cause variation can be reduced by system improvement.

b. Award the DRMO of the Year award to the DRMO which makes the most significant process improvements.

2. Defense Supply Centers:

a. Operationally define the customer's needs while improving engineering and technical support to the military.

b. Develop work teams, when appropriate, to review potential areas such as overspecification, acquisition of commercial products and reduction of lead time.

c. Encourage open communication among functional areas to increase the effectiveness of engineering and technical support to the acquisition process.

d. For new items entering the Federal Catalog System data base, the technical operations staff of each DLA Supply Center will reach full descriptive item identifications for 75 percent of all new DLA-managed items by end FY 92.

3. DLSC:

a. Develop and implement video-teleconferencing capability by the fourth quarter of FY 89 to minimize TDY costs and optimize managers' time.

b. Develop a software package that reduces application processing on the DLSC/DRMS DMINS system. This will free up a large volume of DMINS memory and expedite APCAPS payroll data entry and E mail processing. Estimated implementation date is fourth quarter FY 89.

c. For new items entering the Federal Catalog System data base, the technical operations staff of DLSC will reach full descriptive item identifications for 75 percent of all new DLA managed items by end FY 92.

4 DTIC:

Create a single large data base (name unimportant and unannounced) of all management data available and desirable. The desirability of the data should be determined by users and potential users, both the bench level scientists and engineers that are DTIC's potential customers. Reports should be prepared to fit

the users' (and potential users') needs and titled as the users desire. Many data elements will be used in more than one report while some will be unique to a single report. This approach will engender a spirit and participation and cooperation among the users which will contribute to an increased awareness of DTIC and increase both input and output.

APPENDIX A

DIRECTORATE OF TECHNICAL AND LOGISTICS SERVICES' TQM INITIATIVES

The following efforts have been under development as separate entities for some time. They are all endeavoring to support the customer and, therefore, contribute to the TQM process.

LIVING SPECIFICATION

A formatted document that allows new technology and quality improvements to be added without major, time-consuming revision. Using statistical process control, electronics parts can be manufactured to meet the DoD goal of less than 100 parts per million defects.

FUTURES

An organized system to identify where automation could eliminate any duplication or overlapping efforts in the current Technical Operations environment. Under the Futures effort, we are defining the areas to enhance the capabilities of the Cataloging Tools On-Line prototype. The Modernized Parts Control Automated Support System, with its ability to communicate on-line with the Military Program Managers' offices, system/equipment operators, and between Military Parts Control Advisory Groups, will further support this effort.

VALUE ENGINEERING

Traditionally, the DoD has focused Value Engineering (VE) on cost reductions and productivity gains. Although quality improvements were achieved, they were ancillary or "fringe" benefits. This is no longer the case. Quality is not an ancillary issue. TQM provides a vehicle to broaden the application of VE beyond its traditional role and focus on quality. Quality, like VE, pays. Combined, they can yield a larger payoff than either does when used in isolation from the other.

In the past, the DoD/DLA definition of VE implied that current quality levels were acceptable and adequate with the assurance that the result will be lower cost with equivalent quality. The newly revised DoD VE Directive includes within the VE definition that "... .the objective is to simultaneously improve quality, reduce cost, and improve schedules." DoD is now focusing on using VE as a tool to improve quality, thereby reducing life cycle costs. DLA will be revising their VE regulation in the near future to include the TQM concept.

DEFENSE REUTILIZATION AND MARKETING AUTOMATED INFORMATION SYSTEM

The Defense Reutilization and Marketing Automated Information System (DAISY) will replace all current automated information systems supporting the Reutilization and Marketing function with a single, integrated, on-line, data base management system. The primary benefit of this system will be the on-line update and maintenance of inventory data, as opposed to the weekly batch process update in effect today. This will result in a more timely and accurate inventory data base and will provide our DoD customers with improved visibility of available excess property.

COMPREHENSIVE HAZARDOUS PROPERTY MANAGEMENT PLAN (CHPMP)

The Plan provides a comprehensive and unified approach to Hazardous Material/Hazardous Waste (HM/HW) management within DLA. The plan identifies the six phases in the life cycle of DLA-managed hazardous property beginning with the initial determination of HM requirements and ending with the final disposition of HM/HW.

SELECTIVE SCREENING

Selective Screening is a DLA initiative to improve criteria and procedures for the screening of excess and surplus DoD property by DoD activities, Federal civil agencies, and authorized donees.

FEDERAL CATALOG SYSTEM THREE-TIER GOALS

Three-Tier Goals was established for each Federal Supply Class for Descriptive, Approved Item Names, and Reference Number Ratio and a statistical report (IMSS-3) was developed to track performance. Additional reports are required to facilitate better management review and tracking and will be made available through the DLSC modernization project.

MILITARY ENGINEERING DATA ASSET LOCATOR SYSTEM

The Military Engineering Data Asset Locator System (MEDALS) is a central on-line index of engineering drawings within the DoD. Its use will facilitate the location and transfer of drawings within the DoD and thereby reduce Administrative Lead Time.

ENGINEERING DRAWING MANAGEMENT INFORMATION CONTROL SYSTEM

The Engineering Drawing Management Information Control System (EDMICS) will automate the Technical Data Repositories at the DSCs, enabling more rapid and accurate retrieval of engineering drawings, thereby reducing Administrative Lead Time. In the long run, EDMICS, combined with MEDALS, will enable the exchange of data between the Service repositories and DLA Supply Centers to be handled electronically with even greater decrease in Administrative Lead Time and a greater assurance of the availability of essential technical data.

HAZARDOUS MATERIALS INFORMATION SYSTEM REDESIGN

The Hazardous Materials Information System (HMIS) is an automated data base of the information contained on the Material Safety Data Sheets (MSDSs) furnished with all hazardous materials delivered to the Government. The redesign of the HMIS will increase the utility of the data base by supplying the information contained therein on-line, and providing new ability to generate labels conforming to the OSHA Communications Rule requiring all workers to be informed of the hazards of the materials they work with.

COMPUTER-AIDED ACQUISITION AND LOGISTICS SUPPORT

The continuing participation in Computer-Aided Acquisition and Logistics Support (CALS) development, through membership on various committees and subcommittees and through the use of CALS standards in the design of new systems and operating procedures, will enhance this Agency's ability to communicate with other Services and Agencies and among various activities within DLA with an attendant reduction in Administrative Lead Time and increased accuracy of communications.

ELECTRONIC DOCUMENT SYSTEM (EDS)

Current practice at the Defense Technical Information Center is to maintain copies of technical reports (approximately 1 1/2 million) in microfiche form and reproduce copies, either in microfiche or paper form on demand. The Electronic Document System (EDS) will enable the storage, retrieval, and distribution of documents electronically, thereby realizing greater accuracy, shorten time (more rapid delivery of information to user) and reduced costs (labor, supplies, e.g., paper, and postage).

CATALOGING TOOLS ON-LINE

The current cataloging process is a manual one requiring many reference documents. Cataloging Tools On-Line (CTOL) will enable the cataloger working at a computer work station with a CRT to select from available options with greatly reduced time and increased accuracy. Less highly trained and experienced personnel may be used to perform the cataloging function.

PRECIOUS METALS INDICATOR CODE

An enhancement to the Precious Metals Recovery Program will be made through cataloging process improvement in identification of precious metal bearing items. Will result in improved identification of precious metals bearing items of supply and will enhance recovery of precious metals from those items.

DEMILITARIZATION AND SECURITY TRADE CONTROLS

Improve the demilitarization process through systematic gathering of technical data, utilization of a computerized imaging system and electronic dissemination to field activities.

APPENDIX B

PRIMARY LEVEL FIELD ACTIVITY TQM INITIATIVES

The following are some of the efforts that have been identified by the PLFAs as ongoing TQM initiatives. These efforts are identified in order to share the many ongoing initiatives that are in place.

DEFENSE CONSTRUCTION SUPPLY CENTER

Weekly 'Futures' Meeting - A group study of major problems to work using structured problem solving techniques and Statistical Process Control. The group consists of the Director of Technical Operations and his division chiefs, showing top down commitment.

Quality Circles - These are engaged in solving technical problems. Several of these circles are competing in the recently established DCSC Circle of Excellence Award.

Cross-Training Program - The initial training will include first-line supervisors and all grades above and will consist of functional cross-training among all ICP directorates.

Mini-IPC - A team composed of Inventory Management, Pre-Award, Post Award, as well as matrixed Quality and Technical personnel as needed The team will work DCSC's high demand top 300 items.

Alternative Work Schedule - Employees can work a maximum of 10 hours in any one day, or 80 hours per pay period. Employees may take up to two days off within a pay period as long as they work the required 80 hours. This should result in improved morale, reduced sick leave use, and aid in meeting workload peaks and valleys.

DEFENSE ELECTRONICS SUPPLY CENTER

SPC Requirements in Specifications - SPC and other critical in-line quality controls were incorporated into the microcircuit MIL SPEC, MIL-M-38510, on 12 Feb 1988 with implementation required by 31 Dec 1990.

Living Specification - Efforts are being made to incorporate the living specification concept into appropriate candidate specifications.

Qualified Manufacturers List Concept - A new set of generic qualification standards is emerging that is based on qualifying the production facility and processes rather than the chips themselves. The QML process will be applicable to VHSIC circuit technology.

DEFENSE GENERAL SUPPLY CENTER

Training Classes Development - Training has begun on Statistical Process Control techniques as well as the Total Quality Management concepts.

Top Management Training - An eight hour TQM training workshop has been provided by Dr. James Naughton of Expert Knowledge Systems Inc. DGSC Commander and members of the Executive Steering Group and Working Group Committees attended.

Representative to the DGSC TQM Working Group - This person is involved in committee actions, has attended SPC seminar, SPC training, and is responsible for beginning TQM education process within the directorate.

DEFENSE INDUSTRIAL SUPPLY CENTER

Directorate TQM Plan - Statement of objectives and proposed means of accomplishment.

Quality Council - DISC-E council formed to develop and implement TQM plan.

Training Identification Process (TIP) - Identification of specific training needs at division level and initiation of action to provide appropriate courses to train employees.

Quality Feedback - Weekly branch meetings to encourage information flow from employees to management.

Quality Circles - Employees are encouraged to form circles to help resolve all types of work related problems.

Task Teams - Both intra- and inter-directorate teams formed by management to investigate/resolve specific problems.

Quality Idea Program (QUIP) - Combines the Model Installation Program (MIP) and Beneficial Suggestion Program to encourage employees to submit ideas for improved working conditions and procedures.

Employee Contribution Model (EMC) - Use of cross training emphasizing the contribution of employees toward the Center's goals of procurement, readiness, people, and automation.

TQM Representative - Interfaces with the Center's TQM office, facilitates quality circles, schedules TQM training, tracks task team projects and monitors the QUIP program.

DEFENSE PERSONNEL SUPPORT CENTER

Training - Current training includes Dr. Deming's philosophies as well as statistical process control techniques.

Review of Current Processes - The divisions are investigating

processes and addressing those which give the best return for investment for possible refinements.

DEFENSE FUEL SUPPLY CENTER

Specification Review - Concentration is on moving the purchase of fuels towards commercial specifications.

Tri-Service Task Group - DFSC technical personnel are working with this task group to review the fuels purchased by 10 countries in Europe. Half of these countries have begun buying commercial grade fuels in lieu of the military specification types.

Workload Analysis - Specifications are now being reviewed at the Purchase Request process rather than the solicitation process. This will enable DFSC to provide the customer with a higher quality product in a more timely manner.

DEFENSE INDUSTRIAL PLANT EQUIPMENT CENTER

Packaging of IPE - Currently testing alternative packaging methods for Industrial Plant Equipment (IPE) that is being prepared for overseas shipment. The test will identify alternative packaging methods that ultimately will reduce the cost of preparing DIPEC IPE for overseas shipment.

Test Evaluation of Specifications - This initiative addresses the problems the military services have been experiencing in procuring quality machine tools. The problems increased as the number of poor quality machine tools were delivered by successful bidders. It was determined that first hand experience to test DIPEC specifications in actual procurement would be the best way to determine if the specifications were adequate.

Specialized Maintenance Activities - DIPEC is transforming each of its organic maintenance shops into "Centers of Excellence" for specific types of machines. By specializing the shops to perform maintenance on selected machine groups, i.e., lathes, mills, planers, etc., a higher degree of expertise and capability is being developed which will increase productivity, improve quality, and reduce cost.

Team Maintenance Concept - In the past, machines scheduled for maintenance were assigned to line supervisors for maintenance actions and cost estimates. Today, maintenance teams made up of maintenance, production control, and quality specialists who evaluate each machine and develop the maintenance strategy. This concept is enhancing the quality of products and services provided to DIPEC's customers.

Digitizing Technical Data - On-line capabilities will allow directorates to interrogate and receive same day delivery service at the site. With a completely digitized system, DIPEC will be able to receive and transmit to any government facility, with a similar system, reducing downtime for machines needing repair, thereby reducing costs.

DEFENSE LOGISTICS SERVICES CENTER

Training DLSC has established a recurring TQM training program. By the end of FY 89 all employees will have attended an introductory TQM training class. Each employee will be provided with annual refresher training.

Special Process Action Review Committees (SPARCs) - Approximately 70 DLSC processes have been identified for SPARC analysis. Suitable processes are those with clearly identified owners, suppliers, and receivers. The DLSC staff trained in TQM are flowcharting these processes as part of DLSC's effort to finally select about ten high payoff processes for SPARC analysis. It is anticipated that the SPARCs will be drawn from all directorates/offices and that the team structure will be utilized in order to support the TQM concept of continuous improvement.

SPC Component of TQM Program Implemented for Eight Processes -

Cage Code Processing
Microfiche Duplication Design and Production
Identification List Development and Production
Data Base Batch Update Processes
Production Control and Scheduling
System Change Requests
Preparation of Item Identification for NATO Submitters
Three Tier Goals

DEFENSE TECHNICAL INFORMATION CENTER

Training DTIC has established an ongoing TQM training program for all employees. Initial focus is on Statistical Process Control but scope will be expanded to team building and self-inspection process checklists.

TQM Steering Committee The DTIC TQM Steering Committee has been named. It is chaired by the Deputy Administrator and all directorate/office chiefs are members.

DTIC User Groups and Semiannual User Meetings - DTIC has five user groups comprised of representatives of external customers who advise and make recommendations on specific facets of the DTIC program. In regularly scheduled meetings with the user groups and semiannual meetings of the general user population, current information is disseminated, concerns are addressed, and problems are discussed and resolutions sought. These meetings contribute to DTIC understanding of user needs and provide one means of assessing our performance.

Quality Circles - Quality circles at DTIC are very active. There are nine active circles that involve 20% of the DTIC workforce.

Statistical Process Control - DTIC has begun introduction to SPC as a control and analysis tool. Management has been sensitized to SPC charting techniques (specifically charts showing changes in efficiency) at the monthly management reviews.

DEFENSE REUTILIZATION AND MARKETING SERVICE

Clear, Functional Business Strategy for each Mission Area - A well defined statement of each major process is the first step to objective analysis and full implementation of TQM. Each process can be studied to identify the most fruitful areas for improvement and measure progress.

Training Program - This deals with determining and providing training necessary to empower DRMS employees with the capabilities and desire to enhance their corporate environment. Training will enhance both the breadth and depth of skills of the workforce.

Facility Improvement - DRMS has defined and established facility and equipment standards. A list of projects totaling almost $16 million has been developed to fulfill these plans.

Automation and Modernization - A very active area for DRMS in the realm of process improvement. DAISY, BOSS, and DMINS together will bring the Reutilization and Marketing community into the most advanced automation environment. Antiquated card processing systems are being replaced by advanced automated processes.

Process Improvement - DRMS has already accomplished a number of actions to improve processes. A DRMO has been designated as a test site for evaluating process changes before full implementation. The processing of low dollar value property in condemned condition has been modified to require less effort and thereby increase productivity. Local sales processing has also been modified for improvement.

Statistical Quality Control - DRMS has developed a statistical measurement system for the evaluation of its processes.

MILESTONES FOR DLA-S TQM EXECUTION PLAN		FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	DEVELOP A TQM-TRAINED WORKFORCE																								
1.A	DEVELOP TRAINING REQUIREMENTS			0	*																				
1.B	IDENTIFY TRAINING COURSE AVAILABILITY			0		*																			
1.C	CONDUCT TRAINING			0		======		=======		=======		=======		=======		=======		=======		=======					
2	HARMONIZE DIRECTIVES																								
2.A	REV POLICIES & PROCEDURES TO ENSURE CONSISTENCY WITH TQM PRINCIPLES					0	======		=======		=======		=======		=======		=======		=======		=======				
3	INTEGRATE EXISTING INITIATIVES																								

LEGEND:

0 SCHEDULED START * SCHEDULED COMPLETION 0 STARTED () COMPLETED === ON-GOING PROCESS

	MILESTONES FOR DLA-S TQM EXECUTION PLAN	FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
3.A	IDENTIFY DLA-S INITIATIVES			0	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=
3.B	IDENTIFY PLFA INITIATIVES				0	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=
4	SENSITIZE INDUSTRY TO TQM & ENCOURAGE ADOPTION IN BUSINESS STRATEGY																								
4.A	VALUE ENGINEERING	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=
4.B	STATISTICAL PROCESS CONTROL TECHNIQUES IN MILITARY SPECIFICATIONS	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=	=
4.C	'PAPERLESS ACQUISITION OF TECH DATA'			0												*									
5	DEMONSTRATE UNCOMPROMISING QUALITY																								

LEGEND:
0 SCHEDULED START * SCHEDULED COMPLETION 0 STARTED () COMPLETED === ON-GOING PROCESS

	MILESTONES FOR DLA-S TQM EXECUTION PLAN	FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
5.A	MILITARY SPECS WILL NO LONGER BE RELEASED WITH AQLs & LTPDs			*																					
5.B	ANTI-COUNTERFEITING TECHNIQUES EXPANDED			===		=======				=======				=======				=======				=======			
5.C	QUALITY OF INDIVIDUAL ITEM RECORDS IN FCS						0								*										
5.D	FCS PUBLICATIONS ON ENGINEERING OPTICAL DISK FORMAT			0					*																
6	ENHANCE DLA-S RECOGNITION AND AWARD SYSTEM																								
6.A	DLA TECHNICAL AND ENGINEERING ACHIEVEMENT AWARD			()			*				*				*				*				*		
6.B	HONORARY DOD VALUE ENGINEERING ACHIEVEMENT AWARDS			*			*				*				*				*				*		

LEGEND:
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MILESTONES FOR DLA-S TQM EXECUTION PLAN		FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
6.C.	DLA VALUE ENGINEERING MILLION DOLLAR CLUB	=======				=======				=======				=======				=======				=======			
6.D.	DRMO OF THE YEAR	*				*				*				*				*							
6.E	DLA-S RECOGNITION CEREMONY	()	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
7	DEVELOP FEEDBACK AND COMMUNICATION SYSTEM																								
7.A	PROGRESS REPORTED AT TECHNICAL OPERATIONS CONFERENCE		()		*	*		*	*		*	*		*	*		*	*		*	*				
7.B	VISITS TO PLFAs					O		*																	
7.C	STAFF ASSISTANCE VISITS					=======				=======				=======				=======				=======			

LEGEND:
O SCHEDULED START * SCHEDULED COMPLETION O STARTED () COMPLETED === ON-GOING PROCESS

MILESTONES FOR DLA-S TQM EXECUTION PLAN			FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
8		INSTITUTIONALIZE TQM WITHIN DLA-S																								
8.A	SC	COMMUNICATIONS PROTOCOLS WITH DTIC															*									
8.B	SC	ANNUAL REPORT ON FCS	*				*				*				*				*				*			
8.C	SC	INTERAGENCY COORDINATION OF SCR	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===
8.D	SC	IDENTIFICATION OF NEW PUBLICATIONS	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===
8.E	SE	ELIMINATE AQL & LTPD FROM MIL SPEC	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===	===
8.F	SE	SUSPENSE SYSTEM	0	*																						

LEGEND:
0 SCHEDULED START * SCHEDULED COMPLETION 0 STARTED {} COMPLETED === ON-GOING PROCESS

MILESTONES FOR DLA-S TQM EXECUTION PLAN			FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
			1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
8.G	SM	PROGRAM EVALUATION PROCESS				0				*												
8.H	SM	SALE OF SURPLUS PROPERTY				0				*												
8.I	SP	RECEIPT AND DISTRIBUTION OF MAIL					0			*												
8.J	SP	OFFICE AUTOMATION							0			*										
9		INSTITUTIONALIZE TQM WITHIN PLFAs																				
9.A	DRMS	STATISTICAL QUALITY CONTROL			0				*													
9.B	DRMS	DRMO OF THE YEAR AWARD				0				*												

LEGEND:
0 SCHEDULED START * SCHEDULED COMPLETION 0 STARTED () COMPLETED === ON-GOING PROCESS

MILESTONES FOR DLA-S TQM EXECUTION PLAN	FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
9.C DSCs DEFINE CUSTOMER'S NEEDS			O		*																			
9.D DSCs DEVELOP WORK TEAMS			O		*																			
9.E DSCs ENCOURAGE OPEN COMMUNICATION	=======		=======		=======		=======		=======		=======		=======		=======		=======		=======		=======		=======	
9.F DSCs REACH FULL DESCRIPTIVE ITEM IDENTIFICATION FOR 75% OF NEW ITEMS															*									
9.G DLSC DEVELOP AND IMPLEMENT VIDEO-TELECONFERENCING CAPABILITY			O	*																				
9.H DLSC DEVELOP SOFTWARE PACKAGE THAT REDUCES APPLICATION PROCESSING			O	*																				
9.I DLSC REACH FULL DESCRIPTIVE ITEM IDENTIFICATION FOR 75% OF NEW ITEMS															*									

LEGEND:
O SCHEDULED START * SCHEDULED COMPLETION O STARTED () COMPLETED === ON-GOING PROCESS

MILESTONES FOR DLA-S TQM EXECUTION PLAN	FY 1989				FY 1990				FY 1991				FY 1992				FY 1993				FY 1994			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
9.J DTIC CREATE A SINGLE LARGE DATA BASE OF ALL MANAGEMENT DATA					O							*												

LEGEND:
O SCHEDULED START * SCHEDULED COMPLETION O STARTED () COMPLETED === ON-GOING PROCESS